	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Errors
1	BRS	L1	4667	polysaccharide same polypeptide	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/07/19 15:57			0
2	BRS	L2	18	1 same glycoconjugate	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/07/19 16:00			0
3	BRS	L3	399	1 same complex	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/07/19 15:59			0
4	BRS	L4	0	2 same non$1covalent	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/07/19 15:58			0
5	BRS	L5	29	1 same complex same phosphate	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/07/19 15:59			0
6	BRS	L6	0	5 same mannose	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/07/19 15:59			0
7	BRS	L7	0	1 same glycoconjugate same subunit	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/07/19 16:00			0
8	BRS	L8	78342	disulfide or dimethylene	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/07/19 16:01			0
9	BRS	L9	6	(2 or 3) same 8	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/07/19 16:02			0
10	BRS	L10	1	9 same phosphate	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/07/19 16:02			0
11	BRS	L11	5867	immunolo$5 same disorder	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/07/19 16:03			0
12	BRS	L12	1843	immunological adj disorder	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/07/19 16:03			0
13	BRS	L13	15723	tumor adj necrosis adj factor	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/07/19 16:04			0
14	BRS	L14	102	(11 or 12) same 13	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/07/19 16:05			0
15	BRS	L15	0	14 same (2 or 3)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/07/19 16:12			0
16	BRS	L16	4	delgado adj aurora.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/07/19 16:13			0

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Errors
17	BRS	L17	2	villarrubia adj vicente.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/07/19 16:14			0
18	BRS	L18	15	gomez-pamo adj antonio.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/07/19 16:14			0
19	BRS	L19	18	ranieri adj juan.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/07/19 16:15			0
20	BRS	L20	0	gimenez adj guillermo.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/07/19 16:16			0
21	BRS	L21	4	tuduri adj jose.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/07/19 16:16			0
22	BRS	L22	0	(16 or 17 or 18 or 19 or 21) same (2 or 3)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/07/19 16:17			0
23	BRS	L23	0	(16 or 17 or 18 or 19 or 21) and (2 or 3)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/07/19 16:17			0
24	BRS	L24	0	(16 or 17 or 18 or 19 or 21) and 1	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/07/19 16:18			0
25	BRS	L25	1	(16 or 17 or 18 or 19 or 21) and glycoconjugate	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/07/19 16:18			0

FILE 'MEDLINE' ENTERED AT 16:22 ON 19 JUL 2003

FILE 'CAPLUS' ENTERED AT 16:22:38 ON 19 JUL 2003
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FILE 'AGRICOLA' ENTERED AT 16:22:38 ON 19 JUL 2003

=> s polysaccharide (p) (protein or polypeptide)
L1 36445 POLYSACCHARIDE (P) (PROTEIN OR POLYPEPTIDE)

=> s glycoconjugate
L2 24348 GLYCOCONJUGATE

=> s l1 (p) complex
L3 5157 L1 (P) COMPLEX

=> s l2 (p) non-covalent
L4 6 L2 (P) NON-COVALENT

=> s (l3 or l4) (p) phosphate (p) mannose
L5 27 (L3 OR L4) (P) PHOSPHATE (P) MANNOSE

=> duplicate remove l5
DUPLICATE PREFERENCE IS 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA'
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n
PROCESSING COMPLETED FOR L5
L6 10 DUPLICATE REMOVE L5 (17 DUPLICATES REMOVED)

=> s l6 (p) (glucose) (p) glactose
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L41 (P) '
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'GLUCOSE) (P) GLACTOSE'
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L43 (P) '
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'GLUCOSE) (P) GLACTOSE'
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L47 (P) '
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'GLUCOSE) (P) GLACTOSE'
L7 0 L6 (P) (GLUCOSE) (P) GLACTOSE

=> d l6 1-10 ibib abs

L6 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 1
ACCESSION NUMBER: 2003:368396 CAPLUS
TITLE: Characterization of molecular mass of six water-soluble polysaccharide-protein complexes from ganoderma tsugae mycelium
AUTHOR(S): Peng, Yan-fei; Zhang, Li-na; Xu, Xiao-juan; Cheng, Li-guo
CORPORATE SOURCE: Department of Chemistry, Wuhan University, Wuhan, 430072, Peop. Rep. China
SOURCE: Chinese Journal of Polymer Science (2003), 21(3), 309-316
CODEN: CJPSEG; ISSN: 0256-7679
PUBLISHER: Springer-Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Six water-sol. ***polysaccharide*** - ***protein*** ***complexes*** coded as GM1, GM2, GM3, GM4, GM5 and GM6 were isolated from the mycelium of Ganoderma tsugae by extg. with 0.2 mol/L ***phosphate*** buffer soln. at 25, 40 and 80.degree.C, water at 120.degree.C, 0.5 mol/L aq. NaOH soln. at 25 and 65.degree.C,

consecutively. Their chem. components were analyzed by using IR, GC, HPLC and 13C-NMR, and some new results were obtained. The four samples GM1, GM2, GM3 and GM4 are heteropolysaccharide- ***protein*** ***complexes*** , in which, .alpha.-(1.fwdarw.3) linked D-glucose is the major monosaccharide while galactose, ***mannose*** and ribose are the secondary ones. GM5 and GM6 are .beta.-(1.fwdarw.3)-D-glucan- ***protein*** ***complexes*** . The ***protein*** content increased from 32% to 69% with the progress of isolation. Wt.-av. mol. mass Mw and the intrinsic viscosity [.eta.] of the GM samples in 0.5 mol/L aq. NaCl soln. at 25.degree.C were measured systematically by laser light scattering (LLS), size exclusion chromatog. (SEC) combined with LLS, and viscometry. The Mw of GM1 to GM6 are 35.5, 46.8, 58.9, 41.6, 3.3 and 22.0 .times. 104, resp. The conformation and mol. mass of the two fractions of sample GM5 were characterized satisfactorily by SEC-LLS without further fractionation.

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 2

ACCESSION NUMBER: 1997:484199 CAPLUS
DOCUMENT NUMBER: 127:146167
TITLE: Physiology and pathophysiology of cell organelles. 2. Lysosomes. A. Introduction, morphology and biogenesis
AUTHOR(S): Theron, J. J.; Claassen, N.; Panzer, A.; Lizamore, N.
CORPORATE SOURCE: Departement Fisiologie, Fakulteit Geneeskunde, Universiteit van Pretoria, Pretoria, 0001, S. Afr.
SOURCE: Suid-Afrikaanse Tydskrif vir Natuurwetenskap en Tegnologie (1997), 16(1), 3-9
CODEN: SATTDF; ISSN: 0254-3486
PUBLISHER: Suid-Afrikaanse Akademie vir Wetenskap en Kuns
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Afrikaans

AB A review with 19 refs. Lysosomes are found in the cytoplasm of all eukaryotic cells except mature red blood cells. The matrix of the organelle is sepd. from the surrounding cytoplasm by a trilaminar unit membrane and contains a variety of acid hydrolytic enzymes. Morphol. primary lysosomes (recently formed from the Golgi ***complex***) are distinguished from secondary lysosomes. The latter type is formed after fusion of a vacuole with a primary lysosome and is ultrastructurally extremely heterogeneous due to the large variety of substrates (macromols.) incorporated in the matrix of the organelle. The acid hydrolases of lysosomes comprise phosphatases, nucleases, ***polysaccharide*** and glycosaminoglycan hydrolases, proteases, and lipases. The substrates of these enzymes may be incorporated into secondary lysosomes from extracellular sources (e.g. by receptor-mediated endocytosis), from intracellular sources (e.g. autophagy of endogenous micromols. and aging organelles), through phagocytosis of extracellular particles such as bacteria and dust, and probably through direct transfer via the lysosomal membrane of cytosolic ***proteins*** with the signal peptide, KFERQ. Synthesis of sol. lysosomal enzymes is initiated in ribosomes attached to the membrane of the endoplasmic reticulum. After N-glycosylation in the lumen of the endoplasmic reticulum, enzymes destined for lysosomes receive a specific marker, ***mannose*** 6- ***phosphate*** (M6P). These phosphorylated ***proteins*** can then assoc. with 2 types of M6P receptors. Integral ***proteins*** of the lysosomal membrane and enzymes which will be incorporated in this membrane do not follow the M6P-dependent pathway.

L6 ANSWER 3 OF 10 MEDLINE DUPLICATE 3

ACCESSION NUMBER: 95235774 MEDLINE
DOCUMENT NUMBER: 95235774 PubMed ID: 7719475
TITLE: Affinity purification of a mannose-binding protein, a sensitive tool in the diagnostics of IgM, via site-directed phosphorylated mannan bound to alumina.
AUTHOR: Koppel R; Litvak M; Solomon B
CORPORATE SOURCE: Department of Molecular Microbiology and Biotechnology, Tel-Aviv University, Ramat-Aviv, Israel.
SOURCE: JOURNAL OF CHROMATOGRAPHY. B, BIOMEDICAL APPLICATIONS, (1994 Dec 9) 662 (2) 191-6.
Journal code: 9421796. ISSN: 0378-4347.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199505
ENTRY DATE: Entered STN: 19950605
Last Updated on STN: 20021218

Entered Medline: 19950522

AB Ca2+ -dependent ***mannose*** -binding ***proteins*** (MBPs) belong to the family of animal lectins. They perform in vivo as defence molecules that act as opsonins by enhancing the clearance of ***mannose*** rich pathogens and have been used in vitro for the purification of IgM. MBPs have been previously isolated by methods based on binding the ***protein*** moiety of various mannan species to different matrices. However, the mannan- ***protein*** ***complexes*** did not have a constant ***protein*** content and the yield of the isolated MBPs was variable. In the present study we describe a new approach for the affinity purification of MBPs based on the main ***polysaccharide*** moiety of the ***complex*** . After removal of residual ***phosphate*** groups naturally occurring at the C-3 position of the sugar, which interfere with MBP recognition, the mannan was phosphorylated enzymatically at C-6, at which position the OH group is not required for lectin binding. The enzymatically phosphorylated mannan bound to an alumina column was used successfully for MBP separation from rabbit serum. The ***mannose*** -binding ***protein*** obtained was used in our study for diagnostic purposes in the identification and determination of very low concentrations of IgM.

L6 ANSWER 4 OF 10 MEDLINE DUPLICATE 4
ACCESSION NUMBER: 92192014 MEDLINE
DOCUMENT NUMBER: 92192014 PubMed ID: 1547784
TITLE: Human serum amyloid P is a multispecific adhesive protein whose ligands include 6-phosphorylated mannose and the 3-sulphated saccharides galactose, N-acetylgalactosamine and glucuronic acid.
AUTHOR: Loveless R W; Floyd-O'Sullivan G; Raynes J G; Yuen C T; Feizi T
CORPORATE SOURCE: Glycoconjugates Section, MRC Clinical Research Centre, Harrow, Middlesex, UK.
SOURCE: EMBO JOURNAL, (1992 Mar) 11 (3) 813-9.
Journal code: 8208664. ISSN: 0261-4189.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199204
ENTRY DATE: Entered STN: 19920509
Last Updated on STN: 20000303
Entered Medline: 19920421

AB Carbohydrate recognition by amyloid P component from human serum has been investigated by binding experiments using several glycosaminoglycans, ***polysaccharides*** and a series of structurally defined neoglycolipids and natural glycolipids. Two novel classes of carbohydrate ligands have been identified. The first is 6-phosphorylated ***mannose*** as found on lysosomal hydrolases, and the second is the 3-sulphated saccharides galactose, N-acetyl-galactosamine and glucuronic acid as found on sulphatide and other acidic glycolipids that occur in neural or kidney tissues or on subpopulations of lymphocytes. Binding to ***mannose*** -6- ***phosphate*** containing molecules and inhibition of binding by free ***mannose*** -6- ***phosphate*** and fructose-1- ***phosphate*** are features shared with ***mannose*** -6- ***phosphate*** receptors involved in trafficking of lysosomal enzymes. However, only amyloid P binding is inhibited by galactose-6- ***phosphate*** , ***mannose*** -1- ***phosphate*** and glucose-6- ***phosphate*** . These findings strengthen the possibility that amyloid P ***protein*** has a central role in amyloidogenic processes: first in formation of focal concentrations of lysosomal enzymes including proteases that generate fibril-forming peptides from amyloidogenic ***proteins*** , and second in formation of multicomponent ***complexes*** that include sulphoglycolipids as well as glycosaminoglycans. The evidence that binding to all of the acidic ligands involves the same ***polypeptide*** domain on amyloid P ***protein*** , and inhibition data using diffusible, phosphorylated monosaccharides, is potentially important leads to novel drug designs aimed at preventing or even reversing amyloid deposition processes without interference with essential lysosomal trafficking pathways.

L6 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 5
ACCESSION NUMBER: 1991:651768 CAPLUS
DOCUMENT NUMBER: 115:251768
TITLE: Cell wall and sheath constituents of the cyanobacterium Gloeobacter violaceus
AUTHOR(S): Schneider, Sabine; Juergens, Uwe J.
CORPORATE SOURCE: Inst. Biol. II, Mikrobiol., Albert-Ludwigs-Univ.,

Freiburg/Br., W-7800, Germany
SOURCE: Archiv[redacted] of Microbiology (1991), 156(4)[redacted]12-18
CODEN: [redacted]MICCW; ISSN: 0302-8933
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Sheaths isolated from G. violaceus were found to be composed of a major ***polysaccharide*** moiety (glucose, galactose, rhamnose, ***mannose*** , arabinose), a ***protein*** moiety, and neg. charged components (glucuronic acids, ***phosphate*** , sulfate). Outer membrane ***polypeptide*** patterns were dominated by two major peptidoglycan-assocd. ***proteins*** (Mr 62,000 and 53,000). Lipopolysaccharide constituents were glucosamine, 3-hydroxy fatty acids (3-OH-14:0, anteiso-3-OH-15:0, 3-OH-16:0, 3-OH-18:0), carbohydrates, and ***phosphate*** . A1.gamma.-type peptidoglycan and non-peptidoglycan components (mannosamine, glucose, ***mannose*** , and glucosamine) indicated the presence of a peptidoglycanpolysaccharide ***complex*** in the cell walls of G. violaceus.

L6 ANSWER 6 OF 10 SCISEARCH COPYRIGHT 2003 THOMSON ISI
ACCESSION NUMBER: 91:527360 SCISEARCH
THE GENUINE ARTICLE: GF331
TITLE: CELL-WALL AND SHEATH CONSTITUENTS OF THE CYANOBACTERIUM GLOEOBACTER-VIOLACEUS
AUTHOR: SCHNEIDER S; JURGENS U J (Reprint)
CORPORATE SOURCE: UNIV FREIBURG, INST BIOL 2, SCHANZLESTR 1, W-7800 FREIBURG, GERMANY
COUNTRY OF AUTHOR: GERMANY
SOURCE: ARCHIVES OF MICROBIOLOGY, (1991) Vol. 156, No. 4, pp. 312-318.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: ENGLISH
REFERENCE COUNT: 42
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS
AB Sheaths isolated from Gloeobacter violaceus were found to be composed of a major ***polysaccharide*** moiety (glucose, galactose, rhamnose, ***mannose*** , arabinose), a ***protein*** moiety, and negatively charged components (glucuronic acids, ***phosphate*** , sulfate). Outer membrane ***polypeptide*** patterns were dominated by two major peptidoglycan-associated ***proteins*** (M(r) 62,000 and 53,000). Lipopolysaccharide constituents were glucosamine, 3-hydroxy fatty acids (3-OH-14:0, anteiso-3-OH-15:0, 3-OH-16:0,3-OH-18:0), carbohydrates, and ***phosphate*** . A1-gamma-type peptidoglycan and non-peptidoglycan components (mannosamine, glucose, ***mannose*** , and glucosamine) indicated the presence of a peptidoglycanpolysaccharide ***complex*** in the cell walls of Gloeobacter violaceus.

L6 ANSWER 7 OF 10 MEDLINE DUPLICATE 6
ACCESSION NUMBER: 87269648 MEDLINE
DOCUMENT NUMBER: 87269648 PubMed ID: 3606129
TITLE: Structural study of phosphomannan-protein complex of Citeromyces matritensis containing beta-1,2 linkage. Application of partial acid degradation and acetolysis techniques under mild conditions.
AUTHOR: Kobayashi H; Shibata N; Yonezu T; Suzuki S
SOURCE: ARCHIVES OF BIOCHEMISTRY AND BIOPHYSICS, (1987 Jul) 256 (1) 381-96.
Journal code: 0372430. ISSN: 0003-9861.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198708
ENTRY DATE: Entered STN: 19900305
Last Updated on STN: 19990129
Entered Medline: 19870827
AB The phosphomannan- ***protein*** ***complex*** of Citeromyces matritensis IFO 0651 strain was investigated for its chemical structure by a sequential degradation procedure, partial acid degradation followed by acetolysis under mild conditions. Upon treatment with 10 mM HCl at 100 degrees C for 1 h, this ***complex*** released mannotriose and mannotetraose consisting solely of 1,2-linked beta-D-mannopyranosyl residues, ca. 20% on weight basis of the parent ***complex*** . The acid-degraded ***complex*** was then subjected to acetolysis using an acetolysis medium of low sulfuric acid concentration, a 100:100:1 (v/v) mixture of acetic anhydride, acetic acid, and sulfuric acid at 40 degrees C for 36 h. A ***phosphate*** -containing manno-oligosaccharide

fraction eluted in the void volume region of a Bio-Gel P-2 column was found to consist of Manp b[redacted] 1----2Manp beta 1----2Manp a[redacted] 1----2Man to which 1 mol of ***phosphate*** group was attached, while a manno-oligosaccharide fraction eluted in the diffusable region was a mixture of Manp beta 1----2Manp beta 1----2Manp beta 1----2Manp alpha 1----2Man, Manp beta 1----2Manp beta 1----2Manp alpha 1----2Man, Manp beta 1----2Manp alpha 1----2Man, Manp alpha 1----2Man, and ***mannose*** in the molar ratio of 0.08:0.33:0.19:0.32:1.00. Therefore, the structural analysis of the ***polysaccharide*** moiety of a beta-1,2 linkage-containing phosphomannan- ***protein*** ***complex*** of fungal origin can be achieved by means of a sequential degradation procedure, partial acid degradation followed by acetolysis under mild conditions.

L6 ANSWER 8 OF 10 MEDLINE DUPLICATE 7
ACCESSION NUMBER: 76022360 MEDLINE
DOCUMENT NUMBER: 76022360 PubMed ID: 1100378
TITLE: Mechanism of 2-deoxy-D-glucose inhibition of cell-wall polysaccharide and glycoprotein biosyntheses in Saccharomyces cerevisiae.
AUTHOR: Kratky Z; Biely P; Bauer S
SOURCE: EUROPEAN JOURNAL OF BIOCHEMISTRY, (1975 Jun) 54 (2) 459-67. Journal code: 0107600. ISSN: 0014-2956.
PUB. COUNTRY: GERMANY, WEST: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197512
ENTRY DATE: Entered STN: 19900313
Last Updated on STN: 19970203
Entered Medline: 19751230
AB The mechanism of inhibition by 2-deoxy-D-glucose of the synthesis of yeast wall ***polysaccharides*** and glycoproteins was investigated in Saccharomyces cerevisiae cells and protoplasts. The extent of the inhibition of mannan and glucan synthesis was found to be dependent on whether glucose or ***mannose*** was used as the carbon source in the medium. During growth on glucose, 2-deoxy-D-glucose inhibited more intensively mannan than glucan formation. Biosynthesis of wall glucan was strongly suppressed in ***mannose*** medium. Selective incorporation of 2-deoxy-D-glucose occurred into that ***polysaccharide*** , synthesis of which was more inhibited under given conditions. Suggestive evidence has been obtained that the decisive factor for the proportion of glucan and mannan in the walls is the direction of glucose 6- ***phosphate*** / ***mannose*** 6- ***phosphate*** interconversion dependent on the exogeneous hexose. No close correlation was found between the inhibition of mannan synthesis and the appearance of the mannan- ***protein*** enzymes invertase and acid phosphatase. Effect of 2-deoxy-D-glucose was therefore investigated on the parallel synthesis of ***protein*** , mannan and several extracellular and intracellular enzymes in protoplasts grown on glucose and ***mannose*** . The results obtained pointed out that the hindrance of the secretion of mannan- ***protein*** enzymes is of a ***complex*** nature and related more to the inhibition of synthesis of the ***protein*** moiety than to the inhibition of glycosylation. Synthesis of several enzymes was found to be a subject of a metabolic control by 2-deoxy-D-glucose or its metabolites.

L6 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1968:84505 CAPLUS
DOCUMENT NUMBER: 68:84505
TITLE: Phosphomannanase (PR-factor), an enzyme required for the formation of yeast protoplasts
AUTHOR(S): McClellan, William L., Jr.; Lampen, J. Oliver
CORPORATE SOURCE: Rutgers State Univ., New Brunswick, NJ, USA
SOURCE: Journal of Bacteriology (1968), 95(3), 967-74
CODEN: JOBAAY; ISSN: 0021-9193
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The PR-factor, an enzyme necessary for the production of protoplasts from yeast, was identified and was named phosphomannanase. The enzyme released mannan and mannan- ***proteins*** from yeasts harvested in the logarithmic phase of growth. The mol. wt. of the mols. released was greater than 200,000, which indicated that the enzyme splits very few bonds of the yeast wall. The PR-factor also depolymerized phosphomannans produced by the Hansenula species. The degradation of these substances was due to the splitting of mannosidic bonds. However, the phosphodiester bonds present in these phosphomannans were involved in the specificity of

the enzyme, and the no. of mannosidic bonds cleaved was dependent on the no. of phosphodiester bonds present. A study was made of the digestive products of Hansenula phosphomannans but it was not possible to identify the exact bond split by the enzyme. After enzymic digestion and subsequent splitting of phosphodiester bonds, phosphomannan Y-2448 yielded products too ***complex*** to be sepd. Phosphomannan Y-1842 was shown to have a structure more ***complex*** than that previously proposed. The action of the enzyme on the ***phosphate*** -rich walls of Saccharomyces was studied. Mannan, contg. intact phosphodiester bonds, was released from the walls. Mild acid hydrolysis of this released material split the diester bonds to yield monosaccharide and ***polysaccharide*** terminated in ***mannose*** 6- ***phosphate*** . The enzyme apparently cleaved a mannosidic bond adjacent to a ***mannose*** which was also phosphodiester linked through carbon 1. The significance of phosphodiester bonds in the attachment of mannan and mannan- ***protein*** enzymes to the wall of yeast is discussed. 24 references.

L6 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1964:449662 CAPLUS
DOCUMENT NUMBER: 61:49662
ORIGINAL REFERENCE NO.: 61:8661a-b
TITLE: The spore coats of fungi. I. Isolation and composition of the spore coats of Aspergillus oryzae
AUTHOR(S): Horikoshi, Koki; Iida, Shiegeji
CORPORATE SOURCE: Inst. Phys. Chem. Res., Tokyo
SOURCE: Biochimica et Biophysica Acta (1964), 83(2), 197-203
CODEN: BBACAQ; ISSN: 0006-3002
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Spore coats of A. oryzae were mech. isolated. They exhibited a ***complex*** chem. compn. consisting of ***polysaccharide*** (***mannose*** , glucose, galactose, and glucosamine), ***phosphate*** , ***protein*** , and nucleic acid. Spore coats were partially hydrolyzed by the lytic enzyme from Bacillus circulans, and glucose, laminaribiose, and other unknown sugars were detected in the hydrolyzate. No qual. differences were found between the cell walls and the spore coats. The major quant. difference was in ***protein*** content, which was higher in the spore coats.

=> d his

(FILE 'HOME' ENTERED AT 16:22:17 ON 19 JUL 2003)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT 16:22:38 ON 19 JUL 2003
L1 36445 S POLYSACCHARIDE (P) (PROTEIN OR POLYPEPTIDE)
L2 24348 S GLYCOCONJUGATE
L3 5157 S L1 (P) COMPLEX
L4 6 S L2 (P) NON-COVALENT
L5 27 S (L3 OR L4) (P) PHOSPHATE (P) MANNOSE
L6 10 DUPLICATE REMOVE L5 (17 DUPLICATES REMOVED)
L7 0 S L6 (P) (GLUCOSE) (P) GLACTOSE

=> s immnological disorder
L8 0 IMMNOLOGICAL DISORDER

=> s immunological disorder
L9 2864 IMMUNOLOGICAL DISORDER

=> s tnf or (tumor necrosis factor)
L10 351885 TNF OR (TUMOR NECROSIS FACTOR)

=> s l9 (p) l10
L11 115 L9 (P) L10

=> s l11 (p) l5
L12 0 L11 (P) L5

=> d his

(FILE 'HOME' ENTERED AT 16:22:17 ON 19 JUL 2003)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT 16:22:38 ON 19 JUL 2003
L1 36445 S POLYSACCHARIDE (P) (PROTEIN OR POLYPEPTIDE)

```
L2         24348 S GLYCOCONJUGATE
L3          5157 S L1 (P) COMPLE
L4             6 S L2 (P) NON-COVALENT
L5            27 S (L3 OR L4) (P) PHOSPHATE  (P) MANNOSE
L6            10 DUPLICATE REMOVE L5 (17 DUPLICATES REMOVED)
L7             0 S L6 (P) (GLUCOSE) (P) GLACTOSE
L8             0 S IMMNOLOGICAL DISORDER
L9          2864 S IMMUNOLOGICAL DISORDER
L10       351885 S TNF OR (TUMOR NECROSIS FACTOR)
L11          115 S L9 (P) L10
L12            0 S L11 (P) L5

=> log y
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                  ENTRY    SESSION
FULL ESTIMATED COST                               60.18      60.39

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)      SINCE FILE      TOTAL
                                                  ENTRY    SESSION
CA SUBSCRIBER PRICE                               -3.26      -3.26

STN INTERNATIONAL LOGOFF AT 16:29:24 ON 19 JUL 2003
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